

mention of claims 28-30, absent any cited rejection, Applicant submits that they are in condition for allowance.

Applicant further submits that the Office Action does not fully respond to Applicant's arguments submitted in the Office Action Response filed on April 16, 2002. Specifically, the Office Action fails to indicate how and where the '073 and the '080 references contain teachings that correspond to Applicant's claimed limitations concerning the depleted gas supply zone. Contrary to the Examiner's statement in the Response to Arguments section on page 3 of the Office Action regarding the depleted gas supply not being a requirement of the instant invention, a §103 rejection must consider the claim language "as a whole" and each claim includes these limitations. For example, claim 18 clearly requires "means for supplying a uniform supply of gas to the surface of the wafer, the surface being in a zone of the CVD arrangement that exhibits a depleted gas supply absent the injector." Also, claim 19 clearly states "using a gas injector adapted to maintain uniform supply of the gas in a zone of the CVD arrangement that would exhibit a depleted gas supply absent the injector;" thus these limitations are part of the claimed step and, therefore, cannot be ignored.

M.P.E.P. 707.07(f) dictates that the Office Action should take note of the Applicant's argument regarding the impropriety of the asserted combination and answer the substance of it. This is consistent with the purpose of aiding the Appellant in judging the propriety of continuing the prosecution, as indicated in 37 C.F.R. §1.104(a)(2). The Office Action did not comply with this requirement, and the Applicant has still not been afforded the opportunity to judge the propriety of the §103(a) rejection.

Applicant respectfully traverses the §103 rejections as the Office Action fails to present a *prima facie* case of obviousness. In order to establish a *prima facie* case of obviousness, three basic criteria must be met, as indicated in the M.P.E.P. First, the prior art references must teach or suggest all the claim limitations. Second, there must be a reasonable expectation of success. Third, there must be some evidence in the prior art of suggestion or motivation to modify the reference or to combine reference teachings as asserted in the Office Action. In this instance, the Office Action failed to meet all of the criteria for establishing such a Section 103(a) rejection, as discussed below.

Applicant submits that the proposed combination of references fails to teach or suggest all aspects of the claimed invention. The present invention includes, for example in claim 19, "supplying gas to the surface of the wafer using a gas injector adapted to maintain uniform supply of the gas in a zone of the CVD arrangement that would exhibit a depleted gas supply absent the injector." The Office Action states at page 2 that the '073 reference fails to teach the claimed limitations of controlling the introduction of gases through a sensor or detector. The '080 reference, as indicated in the Office Action at pages 2-3, is directed to measuring the flow characteristics of at least one of the gases in the gas flow path. This does not address the limitations concerning depletion of gas supply in the CVD arrangement as claimed. Monitoring the gas flow path does not correspond to the claim limitations regarding depletion of the gas supply in the chamber. Further, neither reference makes any mention of a depletion of a gas supply.

If the Examiner is asserting that detection of a depleted gas supply is inherently present in the asserted combination, evidence of such inherency argument has not been properly established. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is *necessarily present in the thing described in the reference*, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 U.S.P.Q.2d 1746, 1749 (Fed. Cir. 1991) (emphasis added). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* at 1269, 20 U.S.P.Q.2d at 1749 (quoting In re Oelrich, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981).

As such, the asserted combination fails to teach all limitations of the claimed invention and the §103 rejection is improper.

Further, Applicant submits that there can be no expectation of success for the §103 rejection. A reading of the first paragraph of column 4 of the '073 reference, teaches a detailed process of forming a first isolation cap layer. There is no mention of the layer requiring uniformity. If uniformity was necessary or a goal of the '073 process, it would be included in the discussion. As such, modifying the teachings of the '073 reference with the '080 reference for the intended purpose of the '080 reference as indicated at page 3 of the Office Action, controlling the reaction as the flow rate of gases

affect the extent and uniformity of the deposition reaction, would unnecessarily add complexity to the '073 process. According to long-standing case law, the modification of the '073 reference in this regard is improper and cannot be maintained because such a modification is not evidenced by the prior art and is inconsistent with the intended purpose of the embodiment of the '073 reference. See, e.g., In re Gordon, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984).

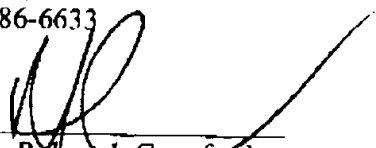
Moreover, Applicant submits that the Office Action fails to present evidence of motivation in support of the modification of the cited '073 reference with the '080 reference. Evidence has not been provided of any teaching or suggestion for using the '073 reference in connection with maintaining a uniform supply of gas in a CVD zone that, absent an injector, exhibits a depleted gas supply, as claimed in the instant invention, or for modifying the reference to achieve the claimed limitations. Recent case law indicates that evidence of motivation must be specifically identified and shown by some objective teaching in the prior art leading to the modification. "Our court has provided [that the] motivation to combine may be found explicitly or implicitly: 1) in the *prior art references* themselves; 2) in the knowledge of those of ordinary skill in the art that certain *references*, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, 'leading inventors to look to *references* relating to possible solutions to that problem.'" Ruiz v. A.B. Chance Co., (Fed. Cir., December 6, 2000). The Office Action fails to provide evidence of why one skilled in the art would be motivated to modify the '073 reference, and does not provide any evidence of factual teachings, suggestions or incentives from the prior art that lead to the proposed modification. Applicant requests that the rejection be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is encouraged to contact the undersigned at (651) 686-6633.

Respectfully submitted,

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